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United States
Department of
Agriculture

Forest Service

Tongass
National
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R10-MB-209

January 1993



Alaska Pulp Corporation Long-Term Timber Sale Contract

North and East Kuiu Final Environmental Impact Statement

Record of Decision





United States
Department of
Agriculture

Forest
Service

Region 10

Tongass National Forest
Stikine Area
P.O. Box 309
Petersburg, AK 99833

Reply To: 1950

Date: January 20, 1993

Dear Reader:

Attached is the Record of Decision (ROD) for the North and East Kuiu Project Area for the Alaska Pulp Corporation Long-Term Timber Sale Contract. If you requested complete documentation of this decision, the following items should be found in the package:

Record of Decision
Summary
Volume I: Final Environmental Impact Statement (EIS)
Volume II: Appendix A
Volume III: Appendices B - M
Map Packet (with 5 maps)

If you requested the quick review documentation of this decision, the package should include only the ROD, Summary, and Map Packet. Copies of the entire Final EIS are available for review at Forest Service offices in Petersburg, Wrangell, Sitka, Ketchikan, and Juneau. Review copies are also available at the public libraries in Petersburg and Wrangell.

The ROD documents my final decision on the selection of an alternative, and the factors considered in reaching the decision. The Effective Date of Implementation for the decision and the Notice of Rights of Appeal are also specified in the ROD.

I want to thank those of you who took the time to review and comment on the Draft Environmental Impact Statement and also those who participated in the Subsistence Hearings. Your interest in the management of the Tongass National Forest is appreciated. I also want to extend a special thank you to those who requested the quick review documentation of this decision in lieu of the entire set of the Final EIS. It reduces the printing and mailing costs.

Sincerely,

for Paula Nelson
ABIGAIL R. KIMBELL
Forest Supervisor

Enclosures



Alaska Pulp Corporation Long-Term Timber Sale Contract

North and East Kuiu

Final Environmental Impact Statement

Record of Decision

Tongass National Forest - Stikine Area

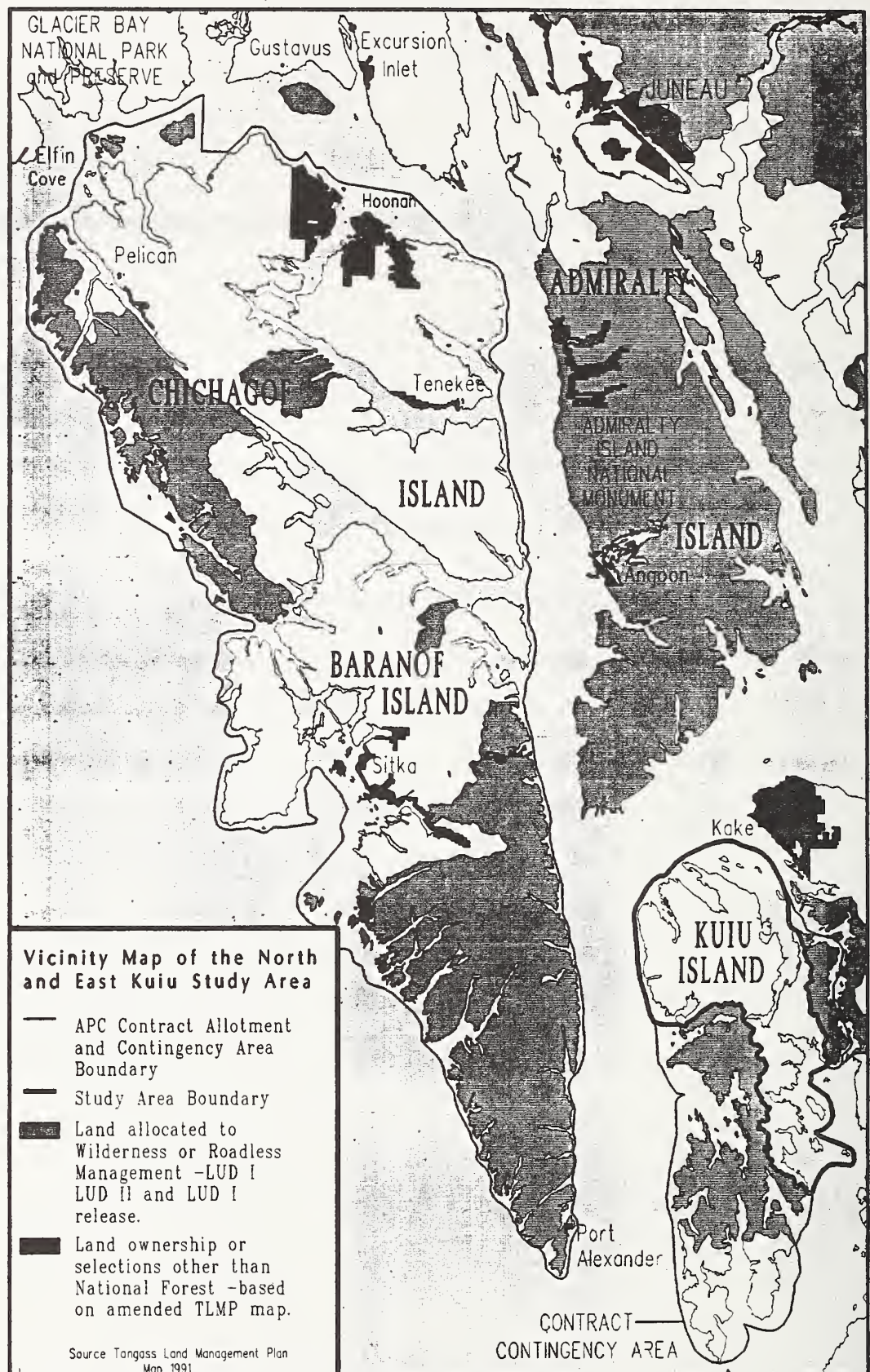
U.S.D.A. Forest Service

Alaska Region

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Background

In 1956, the Forest Service entered into a long-term timber sale contract with the Alaska Lumber and Pulp Corporation, now the Alaska Pulp Corporation (APC). One purpose of this action was to "establish a new industrial enterprise which will be an important and significant step in the industrial development of Alaska" (Forest Service 1956). This contract, one of two which are still being implemented on the Tongass National Forest, is scheduled for completion in 2011.

The purpose and need for this project is to make timber available in accordance with the APC Long-term Timber Sale Contract (No. 12-11-010-1545) while providing for other resources in accordance with the Tongass Land Management Plan (TLMP) and other direction (Final Environmental Impact Statement Chapter 1). Approximately 118 million board feet of sawlog volume, plus another 18 million board feet of utility volume, is expected to be supplied from the North and East Kuiu Project Area in one or more timber offerings that would contribute to volume requirements under the contract.

Reasons for scheduling the environmental analysis of the North and East Kuiu Project Area for timber harvest at this time are described in Appendix F of the Final Environmental Impact Statement. Appendix F also contains a discussion of the current timber supply and the timber volume requirements of the contract.

Public scoping, data collection and analysis, and document production began with issuance of the Notice of Intent published in the Federal Register on June 15, 1990 and updated on April 2, 1991. This Record of Decision (ROD) and the Final Environmental Impact Statement (EIS) disclose the environmental effects of the alternatives considered and document the decision for authorization of activities within the Project Area.

Decision

This Record of Decision (ROD) documents my decision to make timber volume available from the North and East Kuiu Project Area to meet APC Long-term Timber Sale Contract requirements. My decision encompasses the following:

- The volume to be made available under the contract in this Project Area in three or more "timber offerings";
- the location and design of timber harvest units;
- the location and design of road systems;
- the location and design of log transfer facilities;
- necessary standards and guidelines, monitoring, mitigation measures, and enhancement opportunities for resources; and

Record of Decision

- if there is a restriction, the significance of that restriction on subsistence use.

It is my decision to select Alternative 4 as shown on the ROD Map included with this ROD, for implementation in the North and East Kuiu Project Area (see the description of Alternative 4 in Chapter 2 of the Final EIS). This decision is responsive to issues raised during scoping, data gathered and analyzed, public responses to the Draft EIS, and testimony received at the subsistence hearings.

My decision to implement Alternative 4 will authorize the harvest on 5,203 acres in nine VCUs. This specified harvest will provide approximately 118 MMBF of sawlog volume and 18 MMBF of utility volume for a total of 136 million board feet of timber. There will be 106 units associated with the specified harvest.

Of the units selected for harvest, 3 are over 100 acres in size. The harvest units over 100 acres in size, and the reason for these units exceeding 100 acres is displayed in Appendix E of the FEIS. Design features of the harvest units are described in detail on the Unit Plans in Appendix A of the Final EIS.

The Selected Alternative includes uneven-aged harvest for two units. Unit 7 in VCU 416 would harvest approximately 0.6 MMBF of timber as part of a research effort. An additional 1.3 MMBF would be harvested from VCU 399, Unit 19 using group selection. Group selection is an uneven-aged stand management technique to harvest trees in small groups which will remove approximately 15-25% of the stand volume.

The Selected Alternative includes construction of 60 miles of new system road, and construction of 32 miles of temporary road in order to access the specified timber harvest units. Appendix A of the Final EIS contains the Road Descriptions with specific direction for the location and design of each road.

The Selected Alternative includes the construction of a log transfer facility (LTF) and temporary logging camp at No Name Bay. This facility is described and the environmental analysis is included in Appendix D of the FEIS.

This Record of Decision identifies mitigation measures authorized to reduce or eliminate adverse environmental effects of the timber harvest and road construction activities specified in the Selected Alternative. Appendix C of the Final EIS presents the implementation and effectiveness monitoring that will be conducted to determine if the resource management objectives have been met.

Finally, I have determined that there may be a significant restriction of subsistence use of deer in the Project Area based on potential effects on abundance and distribution. However, (a) such restriction is necessary, consistent with sound management of public lands; (b) the amount of public land involved to implement the Selected Alternative is (considering sound multiple-use management of public lands) the minimum necessary; and (c) reasonable meas-

ures to minimize impacts on subsistence have been adopted to the maximum extent practicable while still meeting the purpose and need for this project.

Reasons For Decision

In making my decision, I worked to ensure consideration of all issues and to take into account the competing interests and values of the public. I believe the decision is reasonable. The Selected Alternative provides a beneficial mix of resources for the public within the framework of the existing laws, regulations, policies, public needs and desires, and capabilities of the land, while meeting the stated purpose and need for this project.

My decision to implement this Selected Alternative is in conformance with the Tongass Land Management Plan (TLMP) as amended, and sound National Forest management. I have considered the need to achieve the goals and objectives of the Forest Plan by helping to maintain a current timber supply to APC (as required by the APC Long-Term Timber Sale Contract). I have also considered the need to provide strong protection measures for fish, wildlife, and other resources important to subsistence, recreation, commercial, and other uses.

The Forest Service uses a variety of mitigation measures in the design and implementation of timber management activities. Many of these mitigation measures are included in the Forest Service Manual and Handbooks, the Regional Guide, and the Tongass Land Management Plan. Avoiding potential negative resource effects is a key element of mitigation. This occurs by carefully planning the project so that activities are designed and located, to the greatest extent practicable, in a manner that reduces impacts. Primary examples of mitigation through avoidance include locating harvest units away from high hazard soils and areas with high blowdown hazard. These mitigation measures and their site-specific application are documented on the unit plans and road descriptions (see Appendix A).

Part of my decision involves development of strategies for implementation of ecosystems management, recently addressed by the Chief of the Forest Service on a nationwide basis.

One site, involving a research project begun in the 1970s in the Alvin Bay area, was designed to test alternatives to clearcutting and includes monitoring of effects to watershed, soils, fisheries, and visual resources. Originally the research project involved cooperation with APC to include advanced skyline logging equipment needed for the uneven-aged silvicultural techniques being considered. Because of the moratorium imposed on development activities on East Kuiu during the TTRA legislative hearings, the original cooperative agreement has expired. However, the baseline research data collected in the 1970s is still valid and the Forest Service is interested in continuing the research. APC has expressed a willingness to provide the necessary harvest equipment.

At a second site near Sāginaw Bay, helicopter yarding systems and a harvest pattern that mimics natural windthrow patterns will be tested. The harvest pattern utilizes small group selection techniques to meet objectives for wildlife and visual management.

These tests will provide important information about how and where these silvicultural techniques might be applied elsewhere in southeast Alaska. This is an important opportunity to continue the involvement of the research community in looking for ways to advance our understanding of forest ecosystems.

The study plan for the Alvin Bay Project is included in Appendix I of the FEIS. More detailed study plans for individual elements of the research are available from the Forestry Sciences Laboratory in Juneau.

In the following summary, I detail how the Selected Alternative addresses each of the identified issues. I have considered each of the issues in my decision. Refer to Tables 1 and 2 of this Record of Decision to supplement the following discussion and to provide a comparison of the proposed activities and environmental consequences of the alternatives, including the Selected Alternative.

Issue 1: CULTURAL RESOURCES - How should timber management activities be designed to protect cultural resources.

This issue addresses the concern about protecting archaeological and historical resources.

Section 106 of the National Historic Preservation Act requires Federal agencies to consider the effects of their undertaking on historic properties, including cultural resources, in consultation with the State Historic Preservation Officer. This process includes identification of cultural resources that may be effected, an evaluation of their eligibility for inclusion on the National Register of Historic Places, and an assessment of the effects that may occur. If an adverse effect is found, the Agency is required to consult with the State Historic Preservation Officer to seek ways to avoid or reduce the effects.

The Alaska State Preservation Officer concurred with clearance recommendations and two stipulations in a letter dated November, 30, 1992. The stipulations were: (1) complete the field survey on three timber harvest units prior to their release to APC (units were inaccessible at time of field survey) and (2) conduct post-construction monitoring on all areas of ground exposure along the proposed road system.

Extensive field surveys indicate none of the alternatives present an effect to cultural resources eligible for inclusion on the National Register. Culturally modified trees are the only cultural resource discovered in proposed harvest units or along proposed roads. The culturally modified trees are scattered, lack associated artifacts, and do not appear to meet the criteria to be eligible for inclusion on the National Register of Historic Places. Implementation of beach fringe and estuary buffer zones has effectively eliminated areas of highest potential for cultural resources, thereby minimizing potential impacts to these resources.

Issue 2: ECONOMICS - How should the project be designed to contribute to the economic health of southeast Alaska?

This issue reflects concern about community employment and stability and about maintaining Alaskan lifestyles. Designing a project that is economically viable is also a part of this issue.

To maintain community stability and protect Alaskan lifestyles this project must provide for employment in timber and related sectors of the economy while protecting employment opportunities in other sectors, most notably commercial fishing and recreation/tourism. Subsistence is also a key component of community stability in southeast Alaska. Because of the importance of subsistence it is addressed as a separate issue.

The selected alternative would provide 185 jobs per year over a three year period as a direct result of timber harvest and wood products processing. An additional 157 jobs per year would be provided in other sectors of the economy that supported the businesses and families directly involved in the harvest and processing operations. (This is what economists refer to as indirect and induced employment.) This employment would provide approximately \$11.4 million dollars of income each year for the three years of operation.

These are essentially existing jobs and there is little variation between the action alternatives in terms of employment and income opportunities.

None of the alternatives are projected to have any measurable impact on existing employment and income in the commercial fishing or recreation/tourism sectors of the economy. This conclusion is based on the estimated effects on recreation and fish habitat. Monitoring of impacts on these resources, and corrective actions that will be applied if monitoring indicates that the effects are different from those that have been estimated, will protect employment opportunities related to fishing and tourism.

A mid-market assessment of the Selected Alternative was performed. The resulting estimated net stumpage value is a positive \$58.93 per thousand board feet. The Selected Alternative is, therefore, an economical offering.

Issue 3: FISH - How should fish habitat be managed and what effects would timber harvest and related activities have on fish habitat.

This issue addresses public concern about protecting fish habitat in order to maintain healthy fish populations to support subsistence, commercial, and sport fisheries. Key elements of this issue are buffers of uncut vegetation along fish streams and road crossings of fish streams.

No significant changes in stream temperature regimens or large woody debris recruitment, are expected as a result of the timber harvest activities. Buffer zones as prescribed on the Road Descriptions and Unit Plans in Appendix A of the EIS will effectively mitigate impacts to fish habitat resulting from the activities authorized in the Selected Alternative. Use of BMPs, fish passage through culverts, and windfirm buffers will insure that potential impacts to fish habitat are minimized.

Despite the prediction of no significant effect to fish habitat, it is useful to compare the miles of buffer and number of stream crossings as an indicator of the relative risk of impacts. In comparing the miles of stream buffer and the number of road crossings, Alternative 2 has the least likelihood of impacting the fisheries resources, Alternative 3 the most, and Alternative 4, the Selected Alternative, is intermediate. When considering the number of Class I stream crossings which have the most potential impact on high quality habitat, Alternative 2 has 16 crossings, Alternative 3 has 45 crossings, and Alternative 4 has 25 crossings. Alternative 3 clearly has more risk than either Alternative 2 or 4. The difference in risk between Alternatives 2 and 4 is small.

Issue 4: MARINE ENVIRONMENT - If Log Transfer Facilities are considered, how should they be designed and located to minimize effects on marine resources?

This issue addresses concerns about potential impacts on marine resources such as crab habitat and other uses of marine environments such as anchorages.

Construction of a low-angle slide LTF with a non-violent entry operation is authorized at No Name Bay. Public input on the draft EIS indicated concern over impacts to the anchorage adjacent to the "Fantasy Island" LTF site. To respond to this concern, the LTF site authorized by this decision is on a point outside of the bay. (See Appendix D in the FEIS for an evaluation of the LTF sites considered.) This will protect the existing use of the No Name Bay anchorage and resources.

While the location of the LTF would impact a small area of intertidal and subtidal habitat, marine species identified at the site are commonly found throughout coastal waters of southeast Alaska. Biologists from the U.S. Fish and Wildlife Service and National Marine Fisheries Service have examined this location and agree that it is acceptable. Potential impacts would be low compared to the alternative locations. LTF development is contingent upon approval of permits obtained from those agencies identified at the end of Chapter 1 of the Final EIS. The existing, currently operating LTF site at Rowan Bay, and the Saginaw Bay site which is currently inactive, will be used for the Selected Alternative.

It is anticipated that a satellite camp from Rowan Bay will be established at or near the LTF site in No Name Bay. The effect of this camp on the marine environment is associated with water use, solid waste disposal, and sort yard effluent. All activities associated with these effects will follow current State of Alaska regulations and BMPs. Minimal effects are anticipated from these activities.

Issue 5: RECREATION - How should recreation opportunities be protected or enhanced in the design of timber management activities?

This issue recognizes the concern for providing for an appropriate range of recreational opportunities within the project area.

The Selected Alternative locates timber harvest within previously unharvested areas and increases development within the existing developed areas. However, the Project Area contains only a small amount of the total recreation opportunities on the Tongass National

Forest, and there are similar recreation opportunities nearby. This shift in recreation opportunities is a minor impact when viewed forest-wide.

Recreation places in VCUs 400, 401, 419, 420, and 421 will not be effected with the implementation of the Selected Alternative. The Selected Alternative is limited to the north side of Alvin Bay, maintaining the recreation character of these places and avoids Reid Bay entirely. In addition to these areas, current recreation opportunities immediately adjacent to the study area include the following: Bay of Pillars LUD II, Tebenkof Wilderness LUD I, South Kuiu Wilderness LUD I, Management Areas S07 and S08 (LUDs III and IV), Conclusion Island (LUD II), and Rocky Pass (LUD II).

Issue 6: SOIL - How should timber management activities be designed to protect the soil resource? What effect would activities have on soil productivity?

This issue reflects the concern over protecting soil productivity which is key to the sustainability of the forest ecosystem.

Management practices designed into the Selected Alternative will protect long-term productivity of the soil resource. Harvest units have been designed, and roads located, to avoid high hazard soils. Partial suspension, full suspension, or shovel yarding of logs has been prescribed to protect sensitive soils. Roads have been designed to maintain natural drainage patterns. All disturbed areas of bare mineral soil will be revegetated by application of prescribed grass seed and fertilizer following disturbance.

About 13 percent of the project area is classified as wetland. Resource values associated with these wetlands vary greatly. The Selected Alternative minimizes potential impacts to high value areas rather than avoiding development on all areas classified as wetlands. The Selected Alternative results in an increase of 0.7% of wetlands impacted.

Issue 7: SUBSISTENCE - How should timber management activities be designed to protect traditional subsistence uses? What effect would activities have on subsistence uses?

This issue addresses the concern for the availability of wildlife, marine life, and plants for customary and traditional use by rural Alaska residents.

The Alaska National Interest Lands Conservation Act (ANILCA) requires the Forest Service to determine if proposed activities may significantly restrict use of subsistence resources. If such a finding is made, then ANILCA requires public hearings and determinations regarding actions to minimize impacts prior to proceeding with a project.

Chapter 3 of the Final EIS contains the ANILCA 810 subsistence analysis. In summary, the analysis concludes that there may be a significant restriction of subsistence use of Sitka black-tail deer in the Project Area. This conclusion is based on an analysis of the estimated demand for deer by subsistence hunters compared to the estimated supply of deer available for harvest. The supply of deer is estimated based on the harvestable portion of total deer habitat capability. This is a possibility regardless of which action alternative is implemented. Reliable data on subsistence use of deer from the study area by community is not

available because the deer hunting season has not been opened for several years. Deer populations on the island are recovering and deer hunting may again be allowed in the near future. Because of its proximity, Kake is expected to be the community with the most subsistence hunters using the project area, and therefore the most likely to be impacted by any restriction on subsistence uses. Other communities potentially affected include Sitka, Wrangell, Petersburg, and Point Baker. The foreseeable effects of the action alternatives do not present a significant possibility of a significant restriction for subsistence use of resources other than deer.

Access to historic subsistence-use areas may be affected where logging activities (LTFs, logging camps) are located in the beach fringe. This is because traditional subsistence access is by boat and foot to the beaches of the project area. Motor vehicle access is provided only by barge or boat since the Alaska Marine Highway ferries do not stop within the Project Area. Access by motor vehicle is not considered traditional nor customary on Kuiu Island for subsistence gathering activities.

Finally, the Selected Alternative reflects efforts of the Forest Service to minimize effects on subsistence resources used by those rural communities that would most likely receive the highest priority for game in the event of an ANILCA Section 804, Tier II restriction. The Selected Alternative defers timber harvest in VCU 400 around Fall Dog Creek and in VCU 421 around Kadake Creek in order to avoid areas identified by Kake residents, and others, as important subsistence, historical, and cultural areas.

Issue 8: TIMBER MANAGEMENT - How should the project be designed to provide for efficient and productive long-term timber management?

This issue addresses the need for a project that is designed to maintain long-term productivity of the timber resource and the development of an infrastructure that will facilitate efficient management.

Two recent developments influence my decision with respect to the timber management issue:

1. Passage of the Tongass Timber Reform Act (TTRA) has mandated that the proportion of volume harvest in volume classes 6 and 7 within a management area not exceed the proportion of volume for these classes existing as of November, 1990.

This places a greater burden on the lower volume classes with a corresponding need to disperse harvest over a larger area this entry. While the overall acreage harvested on Kuiu Island would not change as a result of the proportionality requirement it is no longer possible to develop an infrastructure in a sequential manner. It is now necessary to develop a greater part of the roading network to provide the flexibility needed to maintain the volume class stratas 6 and 7 proportionality in any one entry. It is important to me that the infrastructure needed for harvest (i.e., dispersed roading and LTF options) be efficiently developed. Development of infrastructure has been identified in the TLMP and the

TLMP Revision SEIS as a scheduled management activity in Management Areas S04 and S09.

2. The Chief of the Forest Services has recently directed that we give top priority to consideration of ecosystem management in the development of land management proposals.

Consideration of alternatives to the even-age silvicultural system of clearcutting is therefore important to me. A recent Region 10 task force has also identified the importance of timely research. I feel it is important to take advantage of the past work done by Pacific Northwest Experiment Station (PNW) in the Alvin Bay area that was not completed because of the legislative moratorium imposed during the consideration of TTRA.

Three units are part of this research study area, and the regeneration methods will probably include single tree, group selection, and one or more even-aged methods. The study plan (Silvicultural Alternatives to Clearcutting in Southeast Alaska) is designed to learn more about water quality, soil and site changes, and regeneration results (see Appendix I of the FEIS).

In addition to the Alvin Bay study units, Unit 399-19H near Saginaw Bay will be helicopter yarded and will remove trees from small patches. The resulting small stands will simulate the results of naturally occurring blowdown while minimizing the visual impacts from saltwater and road systems.

Development of an infrastructure is also important to me for the long range efficient management of other resources of the area

Alternative 2 develops the least infrastructure of all the action alternatives. I am selecting Alternative 4 over Alternative 3. Although Alternative 3 would develop the most infrastructure, it has the lowest economic return of all alternatives. This is because of the higher cost of accessing the relatively poorer quality timber on the Camden Peninsula associated with Alternative 3. Location of a log transfer facility in Port Camden would be desirable to defray these costs but is not acceptable with a conventional log rafting facility due to environmental conflicts. I am therefore deferring harvest activities on the Camden Peninsula pending examination and testing of a log transfer facility designed exclusively for the barging of logs. Barging would substantially improve the economics of timber harvest on the Camden Peninsula by reducing the overall transportation costs. Barging will also reduce environmental impacts.

Alternative 4, the Selected Alternative, is an economically viable alternative that will both develop the necessary infrastructure and provide the opportunity for studying alternatives to clearcutting.

Issue 9: VISUAL RESOURCE - How should timber management activities be designed to protect areas of high scenic quality and what effect would activities have on the landscapes of Kuiu Island?

This issue addresses concern for maintaining the scenic quality of the Kuiu Island ecosystem, especially in those areas that are most important to recreational visitors to Kuiu Island.

The Selected Alternative spreads harvest activities over both north and east Kuiu in a manner that limits the total visual impact on any given viewshed. It defers activities in most visually sensitive areas where timber harvest currently dominates the seen area and defers any visual impact on the east side of Port Camden. Activities proposed in No Name Bay are at the same level as in Alternative 3, however those proposed in Alvin and Reid Bays are limited and would have less total effect than Alternative 3.

In response to public comments received on the DEIS, fifteen units have been redesigned and another three units were dropped to reduce visual impacts.

Issue 10: WATER QUALITY - How should timber management activities be designed to protect water quality? What effects would timber management activities have on water quality?

This issue addresses the concern for maintaining the productivity of the aquatic ecosystems.

Chapter 3 of the Final EIS concludes that for all action alternatives, BMP implementation and monitoring ensures compliance with the State water quality standards and the Clean Water Act. BMP application during unit design, harvest activities, and road design and construction will minimize erosion and sedimentation. All action alternatives will produce sediment load increases. However, a water quality study (Paustian, 1988) conducted in southeast Alaska indicated that BMPs are effective in maintaining sediment concentrations within a range of natural variability.

Issue 11: WILDLIFE - What effects would timber harvest and related activities have on wildlife habitat?

This issue reflects concern for maintaining productive wildlife habitat to support healthy wildlife populations.

The greatest direct effect to wildlife habitats would be the conversion of old-growth habitat to early successional stages. Special emphasis habitats such as beach and estuary fringe are protected through the design and location of harvest units and roads. Forested habitat in the study area would be reduced approximately 3 percent from 162,070 acres to 156,698 acres. About 73,778 of these acres are within old-growth blocks that were identified as high value habitat. Additional old-growth habitat is available in the Kuiu Wilderness, Tebenkof Wilderness and Bay of Pillars LUD II and Rocky Pass LUD II areas which are all adjacent to the project area.

The Selected Alternative will maintain large blocks of old-growth habitat throughout the project area. The beach, estuary, and riparian habitats will serve as connecting corridors be-

tween these old-growth blocks. Together, these old-growth habitats which will be maintained throughout the life of the project exceed the old-growth retention standards in TLMP. These old-growth habitats are displayed on the ROD map.

The Selected Alternative also includes standards that will insure the protection of any marbled murrelet or goshawk nest sites that may be located during project implementation.

Public Involvement

Public involvement has been instrumental in identifying issues, formulating alternatives, and influencing this decision. A scoping document was mailed to over 400 individuals and organizations in June of 1990. A meeting was held in the winter of 1991 with several interested members of the public to review the draft alternatives. Public comments were received at six subsistence hearings. The planning team met with the Southeast Native Subsistence Commission (SENSC) to discuss native concerns. After the draft EIS was distributed to the public for review, fifty-one responses were received. All of the public input has been instrumental in establishing the scope of the analysis and shaping the alternatives.

Coordination With Other Agencies

From the time scoping was initiated, meetings and site visits with interested State and Federal agencies have occurred. Issues were discussed and information was exchanged. Alaska Department of Fish and Game (ADF&G) biologists were invited to attend interdisciplinary team meetings to assist in the analysis of harvest unit boundaries and stream protection measures. The United States Coast Guard is a Cooperating Agency in this analysis. (Their main interest has been in a potential bridge to access an LTF that was considered in No Name Bay. That LTF site is not part of this final decision.) Biologists from the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries surveyed the proposed LTF sites.

Chapter 5 of the Final EIS identifies the agencies who were informed of and/or involved in the planning process (see List of Agencies, Organizations, and Individuals to Whom Copies of this Statement Were Sent). See also the discussion of subsistence in the section entitled Findings Required by Law, later in this ROD.

Alternatives

Alternatives Considered But Eliminated From Detailed Study

Initially, three alternatives (in addition to the "no-action alternative") were developed to respond to the issues. This first set of alternatives represented a broad range of responses to the issues, but did not meet the proportionality requirements of the recently passed Tongass Timber Reform Act. Each of these alternatives is discussed briefly. More specific information on harvest units and volumes, including maps of the alternatives is available in the planning records in the Stikine Area Supervisor's Office in Petersburg, Alaska.

Alternative 2.1 - This alternative would have produced about 113 million board feet (MMBF) from 5,681 acres. Harvest would have been concentrated on north Kuiu leaving east Kuiu essentially un-roaded. About 87 additional miles of road would have been constructed. This alternative provided the basis for Alternative 2. The theme is the same as Alternative 2, but it was necessary to change the mix of units from the unit pool in order to satisfy the proportionality requirement.

Alternative 3.1 - The focus of this alternative was maximizing investments in the road system on east Kuiu to facilitate future resource development and at the same time reducing impacts on north Kuiu by deferring additional development as much as practical in that area. This alternative would produce approximately 124 MMBF by harvesting about 6,836 acres. About 134 miles of new road would be constructed, mostly on the currently un-roaded portion of east Kuiu Island. A log transfer facility and small camp would be developed in the No Name Bay vicinity. This alternative provided the basis for Alternative 3, and has essentially the same theme as that alternative.

Alternative 4.1 - Unlike the two previous alternatives which focused development in one part or another within the study area, this alternative would spread the development throughout the study area in effort to minimize the impacts in any one location and to preserve options for the future in the more sensitive locations within the study area. Under this alternative, development on the west side of Port Camden would be deferred. Although less extensive than in Alternative 3.1, a road system would be developed along the eastern side of the island. This alternative would harvest 117 MMBF from 5,668 acres and build 88 miles of new road. It would also include a log transfer facility and a logging camp at No Name Bay.

In addition to the alternatives eliminated from detailed study, there is direction common to all alternatives that precluded detailed study of development in particular locations within the study area. The most significant of these are the west side of Security Bay and portions of the Kadake Bay drainage. These areas contain rivers eligible for Wild and Scenic River designation. They are also areas considered to be valuable for their old-growth habitat and

subsistence resources. These areas were visited on the ground by the IDT, but it was decided to defer further consideration of development in these areas at this time in order to allow consideration of whether the rivers should be recommended as Wild and Scenic through the revision of the TLMP, to protect the old-growth habitat, and to protect the subsistence uses.

Another element that was considered, but eliminated from detailed study, was a possible log transfer facility (LTF) at Port Camden. Since much of the timber to the east of Port Camden is in relatively low volume stands and requires considerable investment in road building, the contribution of this area to the overall economic desirability of the offering is fairly low. A log transfer facility at Port Camden would have improved the economic situation by reducing the transportation related costs for the timber coming from this area. However, because of the subsistence concerns in Port Camden, and the lack of suitable location (U.S. Department of Commerce, National Marine Fisheries Service, report dated April 9, 1991) an LTF in Port Camden was eliminated from further consideration.

Alternatives Considered in Detail

The following four alternatives were considered in detail in the Final EIS. All alternatives are consistent with the TLMP as amended, and designed to be consistent with the draft revised TLMP. For a complete description of these alternatives, refer to Chapter 2 of the North and East Kuiu Final EIS. At the conclusion of this section, Table 1 lists the scheduled activities and major outputs for each of the four alternatives considered in detail.

Alternative 1

This is the no action alternative which is required by NEPA. It assumes no change in current management. At the current rate of harvest on Kuiu Island, all the timber volume made available for harvest through previous decisions is expected to have been harvested by the time a decision is issued on this project. Because no previously authorized harvestable volume will remain in the project area, the effects of this no action alternative are the same as an alternative that would halt previously authorized harvest activities. This alternative assumes that contractual requirements for timber volume could be met by making timber available from areas other than Kuiu Island. Because of this, the no action alternative does not include consideration of, nor analysis of, the social, environmental, or economic costs and benefits of closing the mills in Sitka and Wrangell. For the same reason, consideration of the costs and benefits of operating the mills is beyond the scope of the action alternatives.

Alternative 2

Implementation of this alternative would include harvesting approximately 102 million board feet (MMBF) of timber from 4,762 acres of forest. Most of the harvest would be by clearcutting, however 1.3 MMBF would be harvested from unit 19 in VCU 399 using a group selection silviculture system designed to mimic natural blowdown in order to enhance protection of wildlife habitat and visual quality. Helicopter yarding would be employed on 431 acres; the remainder would be harvested using a shovel loader or cable based systems.

About 56 miles of new forest development roads and 25 miles of temporary roads would be constructed.

This alternative would minimize entry in the mostly un-roaded east Kuiu Management Area, but instead concentrate harvest in the already developed portions of north Kuiu. By deferring harvest on east Kuiu, the primitive character of this area is maintained through the life of this planning period but the concentrated harvest on north Kuiu will result in a near maximum level of development and harvest in some watersheds.

Some important elements of this alternative are the protection of the wild and scenic river potential of Kadake Creek and Fall Dog Creek (Security Bay); and the maintenance of large blocks of old-growth habitat in west Security Bay and near the mouth of Kadake Creek.

Alternative 3

This alternative would schedule most of the harvest for this offering on east Kuiu. Implementation of this alternative would include the harvesting of approximately 116 MMBF of timber from 5,527 acres of forest. Most of the harvest would be by clearcutting, however approximately 0.6 MMBF would be harvested from unit 7 in VCU 416 using group selection harvest as part of a research effort on alternative regeneration systems. Helicopter yarding would be employed on 379 acres and the remainder would be yarded by shovel loader or cable systems. About 83 miles of new forest development roads and 37 miles of temporary roads would be constructed. Another key element of this alternative is construction of a new log transfer facility at Fantasy Island in No Name Bay.

Alternative 4

This alternative will maintain options through the life of this offering by spreading the harvest over both north and east Kuiu, but deferring harvest in the more sensitive parts of both management areas. Harvest units will be designed in a manner that provides for a high degree of resource protection. Investments in mitigation and capital investments will be high.

Implementation of this alternative would include the harvesting of approximately 118 MMBF of timber from 5,203 acres of forest. Most of the harvest would be by clearcutting, however approximately 0.6 MMBF would be harvested from unit 7 in VCU 416 using uneven-aged harvest as part of a research effort. An additional 1.3 MMBF would be harvested from unit 19 in VCU 399 using group selection. Helicopter yarding would be employed on 431 acres, the remainder would be yarded by shovel loader or cable systems. About 60 miles of new forest development roads and 32 miles of temporary roads would be constructed. Another key element of this alternative is construction of a new LTF on a point outside the mouth of No Name Bay. This new LTF location was developed in response to public concerns regarding the need for an ice-free anchorage at the Fantasy Island location.

Table 1

Comparison of Proposed Activities for the Alternatives

Proposed Activities	Alternatives			
	1	2	3	4
Timber Volume (MMBF)				
Net Sawlog	0	102	116	118
Utility Volume	0	16	18	18
Total Harvest	0	118	134	136
Roads (miles)				
Forest Development Roads	0	56	83	60
Temporary Roads	0	25	37	32
Total Road Miles	0	81	120	92
Facilities				
LTFs	0	0	1	1
Temp. Logging Camp	0	0	1	1

Comparison of the Environmental Consequences of the Alternatives

Table 2 displays a summary comparison of the anticipated consequences of each of the alternatives including the Selected Alternative. It is presented by resource as in Chapter 3 of the Final EIS.

Table 2

Summary Comparison of Alternatives

Issue	Alternative 1	Alternative 2
	No Action	North Kuiu
Cultural Resources	No impacts.	No impacts to sites eligible for inclusion in the National Register of Historic Places.
Economics	The logging camp at Rowan Bay would be closed and the families and workers displaced.	Harvest volume would provide approx. 296 jobs over a three year period and provide \$ 9,856,000/year income to the local economy. Net stumpage value is positive at \$ 50.24/MBF.
Fish Habitat		
Riparian Habitat	No additional impact.	2.6 miles of Class I 100' buffers. 1.4 miles of Class I 100'+ buffers.
Road Crossings	No additional impact.	16 crossings of Class I streams.
Sediment production	No additional impact.	Application of BMPs will minimize sediment.
Marine Environment	No additional impact.	Existing LTFs at Rowan Bay and Saginaw Bay will be used. Increase in depth of the 30-acre bark accumulation at Rowan Bay and less than one acre accumulation at Saginaw Bay is expected.

Alternative 3	Alternative 4
East Kuui	North and East Kuui
No impacts to sites eligible for inclusion in the National Register of Historic Places.	No impacts to sites eligible for inclusion in the National Register of Historic Places.
Harvest volume would provide for approx. 337 jobs over a three year period and provide \$10,989,000/year income to the local economy. Net stumpage value is positive at \$ 9.04/MBF.	Harvest volume would provide for approx. 342 jobs over a three year period and provide \$11,389,000/year income to the local economy. Net stumpage value is positive at \$ 58.93/MBF.
6.1 miles of Class I 100' buffers. 2.7 miles of Class I 100'+ buffers.	5.1 miles of Class I 100' buffers. 3.1 miles of Class I 100'+ buffers.
45 crossings of Class I streams.	25 crossings of Class I streams.
Application of BMPs will minimize sediment.	Application of BMPs will minimize sediment.
Same as Alternative 2 with an additional new LTF constructed at Fantasy Island in No Name Bay. Impact of the new site will include intertidal habitat covered with shot rock and an estimated 3.3 acres of subtidal habitat covered with accumulating bark.	Same as Alternative 3 except the new LTF site is moved to a point outside of the mouth of the bay.

Record of Decision

Table 2 continued

Summary Comparison of Alternatives

Issue	Alternative 1 No Action	Alternative 2 North Kuiu
Recreation	No additional impact.	Rowan Bay, Cool and Ledge Lakes and the Port Camden area will become roaded and developed.
Soils	No additional impact.	No roads would be located on high hazard soils. No high hazard soils would be harvested.
Subsistence	No additional impact.	There may be a significant restriction of subsistence use of deer.
Timber	No additional impact.	4,762 acres would be harvested. 56 miles of specified and 25 miles of temporary road would be constructed. Units meet proportionality requirements as specified in TTRA.

Alternative 3 East Kuiu	Alternative 4 North and East Kuiu
Most recreation places in the east Kuiu and Port Camden areas would be affected.	Impacts to existing recreation places and opportunities would occur in the east Kuiu area.
No roads would be located on high hazard soils. 75 acres of high hazard soils would be harvested.	No roads would be located on high hazard soils. No high hazard soils would be harvested.
There may be a significant restriction of subsistence use of deer.	There may be a significant restriction of subsistence use of deer.
5,527 acres would be harvested. 83 miles of specified and 37 miles of temporary road would be constructed. Units meet the proportionality requirements as specified in TTRA.	5,203 acres would be harvested. 60 miles of specified and 32 miles of temporary road would be constructed. Units meet the proportionality requirements as specified in TTRA.

Table 2 continued

Summary Comparison of Alternatives

Issue	Alternative 1	Alternative 2
	No Action	North Kuiu
Visual Resource	Landscapes of Kuiu Island would be maintained in their current visual condition.	Harvest would be deferred in West Security Bay, Alvin and Reid Bays, the Salt Lagoon and No Name Bay. Activities in East Port Camden would dominate the seen area.
Water Quality	No additional impact.	Lowest risk of sedimentation. BMP implementation and monitoring will assure compliance with the Clean Water Act.
Wildlife		
Habitat Capability (Number of Animals)		
Sitka Black-tailed Deer	8,781	8,639
Black Bear	440	437
Marten	758	741
River Otter	266	266

Alternative 3	Alternative 4
East Kuiu	North and East Kuiu
Landscapes of Port Camden and east Kuiu Island would receive the greatest impact as a result of timber harvest.	Harvest in the east side of Port Camden would be deferred. The road into VCU 416 would stop north of Alvin Bay.
Activities would dominate the landscapes of the Salt Lagoon, Port Camden, and Alvin and Reid Bays.	Activities would dominate the landscapes of the Salt Lagoon and No Name Bay.
Highest risk of sedimentation.	Moderate risk of sedimentation.
BMP implementation and monitoring will assure compliance with the Clean Water Act.	BMP implementation and monitoring will assure compliance with the Clean Water Act.
8,667	8,639
439	439
739	740
266	266

Table 2-7 continued

Summary Comparison of Alternatives

Issue	Alternative 1	Alternative 2
	No Action	North Kuiu
Habitat Capability (cont.)		
Bald Eagle	543	541
Habitat Types		
Beach Fringe	No additional impact.	No additional impact.
Estuary Fringe	No additional impact.	No additional impact.
Streamside Riparian	No additional impact.	109 acres harvested -- less than 1% decrease in existing habitat.
Forested	No additional impact.	4,887 acres ¹ harvested -- 3% decrease in existing habitat.
Old-Growth Habitat Blocks	No additional impact.	Fragmentation only in Cool Lake Block will be minimized by group selection harvest.
¹ Acres of habitat include total acres of partial cut units.		
Source: Condon, 1992		

Alternative 3	Alternative 4
East Kuia	North and East Kuia
539	541
8 acres harvested --less than 1% decrease in existing habitat.	8 acres harvested -- less than 1% decrease in existing habitat.
0 acres harvested --no additional impact.	No additional impact.
109 acres harvested --less than 1% decrease in existing habitat.	135 acres harvested -- less than 1% decrease in existing habitat.
5,350 acres harvested -- 3% decrease in existing habitat	5,372 acres harvested -- 32% decrease in existing habitat.
Salt Lagoon Block has approximately 8% harvested. Units are designed to minimize fragmentation by providing travel corridor from Tebenkof Wilderness to Salt Lagoon.	Salt Lagoon Block has approximately 8% harvested. Units are designed to minimize fragmentation by providing travel corridor from Tebenkof Wilderness to Salt Lagoon. Fragmentation in Cool Lake Block will be minimized by group selection harvest.

Environmentally Preferred Alternative

There is no single factor that can be used to determine which alternative is environmentally preferred. Maintaining the basic productivity of the land and the quality of lifestyle of the local residents are vitally important.

Based on the comparison of the alternatives shown in the preceding Table 2, Alternative 1, the "No-Action" alternative would cause the least environmental disturbance.

Alternative 2 could be considered, depending on individual environmental values, the environmentally preferred action alternative, primarily because it concentrates all activities on the north end of the island leaving most of east Kuiu in an unroaded state. It is only slightly preferable to Alternative 4 which would maintain the east side of Port Camden in an unroaded condition.

Mitigation

Mitigation includes measures prescribed and implemented to avoid, reduce, minimize, or eliminate the adverse affects of actions. These measures were applied in the development of the project alternatives, including the Selected Alternative, and in the design of the harvest units and roads corridors. The Mitigation Measures section of Chapter 2 of the Final EIS discusses the mitigation measures common to all alternatives.

Mitigation measures applicable to the Selected Alternative include mitigation measures contained in the standards and guidelines of the Tongass Land Management Plan of 1979 (as amended), draft Tongass Land Management Plan Revision, Alaska Regional Guide, and applicable Forest Service Manuals and Handbooks. The Final EIS includes Harvest Unit Plans and Road Cards (Appendix A) which incorporated site-specific mitigation. These measures are adopted as part of this decision.

All practical means to avoid or minimize adverse environmental effects of the Selected Alternative have been adopted. Measures have been included to protect, enhance, and restore resources affected by timber harvest and related actions. The Forest Service has the authority through the APC Long-term Timber Sale Contract and other permit requirements or authorities, to enforce and implement adopted mitigation measures and the monitoring necessary to ensure the effectiveness of the mitigation. The following mitigation measures are authorized for application to the North and East Kuiu Project Area.

1. Water quality and fish production are protected through the application of Best Management Practices (BMPs) stated in the Soil and Water Conservation Handbook (FSH 2509.22) and the direction contained in the Aquatic Habitat Management Handbook (FSH 2609.24). These handbooks provide standard operating procedures for all stream classes. The Tongass Timber Reform Act

(TTRA) requires a minimum 100-foot buffer for all Class I streams and Class II streams directly flowing into Class I streams. The actual width of this buffer will often be greater than 100 feet to provide a windfirm boundary, conform to topographical features, protect riparian soils, follow timber stand boundaries, and because of varying stream channel location. The buffers and other stream protection measures adopted in this decision equal or exceed all TTRA requirements.

Other Class II (those not flowing directly into Class I streams) and Class III streams will be protected to prevent impact on downstream TTRA protected streams as well as to reduce additional sedimentation and soil erosion. Several Class III streams are to be buffered to the slope break or to a windfirm boundary. Logging operations will be conducted to avoid adversely affecting the stream buffers for all stream classes and the channels of Class III streams. Roads will be located, designed, constructed, and maintained to minimize impacts on stream buffers, provide for fish passage, and protect water quality. This will be accomplished through the application of BMPs and through compliance with the TTRA and the Aquatic Habitat Management Handbook.

Effectiveness: Past experience on other timber harvest areas indicates these measures are effective in reducing the impacts of timber harvest and road development and use on water quality and fish habitat. Providing and protecting adequate, windfirm stream buffers provides for stream channel stability, a source of large woody material, stream temperature regulation, sediment filter, and habitat diversity in the affected area.

2. Some BMPs applied to protect water quality and fisheries habitat also reduce impacts on forest soils. Soils with an extreme mass-wasting hazard have been avoided in the preparation of harvest units. Class III stream channels within units are protected by directional felling, full or partial suspension of logs, and removal of debris. Unit boundaries will be located to provide for a windfirm boundary in order to minimize soil and adjacent timber disturbance.

Effectiveness: Research and experience has shown that proper unit design, application of BMPs, selection of logging systems, and enforcement of specific operating requirements are effective in the mitigation of logging and road building's effects to forest soils. Due to the nature of the shallow soils, tree rooting characteristics, and the wind conditions of southeast Alaska, it is doubtful that windthrow can be eliminated, but careful harvest unit layout can minimize the effects of windthrow.

3. To reduce adverse effects on wildlife habitat values, units were intentionally located outside of riparian areas and the beach and estuary fringe habitats wherever practicable.

Effectiveness: Avoidance of these key high quality habitat areas provides for important winter feeding areas, habitat diversity, and the maintenance of wildlife travel corridors within the developed area.

4. Measures individually identified for each harvest unit and road to minimize adverse effects on wildlife include retention of reserve trees (where safe and practical to do so), retention of large down woody material, and the design of harvest activities to avoid disturbance to bald eagle nest sites. This direction is contained in the Unit Plans and Road Cards.

All temporary roads will be closed and erosion control (e.g., waterbars, grass seeding) performed after their use is completed.

Effectiveness: These measures have been used effectively in the past throughout southeastern Alaska. However, the retention of reserve trees is relatively new. Experience elsewhere has shown that leaving reserve trees provides for cavity-nesting bird and wildlife habitat, stand structural diversity, and a source of future large down woody material.

5. Mitigation measures will be implemented to reduce bear/human interaction. Logging camp residents will be informed of bear behavior and management policies. Logging camps will use incinerators to dispose of garbage and after October, 1993, incinerated garbage will be removed from the logging camp and transported to designated landfills.

Effectiveness: Experience in several southeast Alaska communities and elsewhere, has indicated that there is usually a large number of bears killed near garbage dumps. Historically, this was also true for logging camps. Public education programs have successfully affected public attitudes and actions. Proper disposal of solid waste, including the use of incinerators, has been shown effective in preventing attraction of bears and the reduction of bear/human contacts in many locations. Logging camps on the Stikine Area have reduced bear/human contacts in recent years through both increased awareness and the use of incinerators at all camps.

6. Visual quality impacts are expected to exceed the inventoried VQOs in portions of the Project Area as a result of implementation of the Selected Alternative. To minimize this impact for specific harvest units, measures will be implemented to blend unit boundaries with topography and natural openings, and to make limited adjustments to unit boundaries to soften or feather straight-edges. These mitigation measures will be applied only to those harvest units for which these measures are specified in the Unit Plans in Appendix A of the Final EIS. Throughout the Project Area in visually sensitive areas, cut banks and fill slopes will be seeded with grass and fertilized to revegetate these disturbed sur-

faces. Roads, landings, rockpits, log sorts yards will be located and designed to minimize their visual impact.

Effectiveness: The effectiveness of these measures will be dependent on the topography, existing vegetative patterns and age classes, and viewpoint of the observer. Implementation of these measures will somewhat lessen the effect of logging on the landscape, but the passage of time will be the greatest mitigation as harvest areas revegetate and trees become re-established. Practices selected to mitigate visual impacts likewise reduce the effects of timber harvest on views from anchorages and other recreational use areas.

7. If indicated, the Forest Service will recommend to the Federal Subsistence Board restrictions on non-rural harvesters.

Effectiveness: Implementation of this type of mitigation measure in other areas has proved effective in protecting the wildlife resources. Since the North and East Kuiu Project Area is not directly tied to the Alaska Marine Highway System, implementing these measures should prove to be even more effective in protecting wildlife resources and therefore the subsistence resources in the Project Area.

Monitoring

A monitoring program is the process by which the Forest Service can evaluate whether the resource management objectives of the Final EIS have been implemented as specified and whether the steps identified for mitigating the environmental effects were effective. Three levels of monitoring are recognized. The first two levels, implementation monitoring and effectiveness monitoring are generally feasible at the project level. The third level, validation monitoring, is conducted at the Regional or forestwide level.

Applicable monitoring requirements are specified in Appendix C of the Final EIS. For each monitoring item, an objective, desired result, method of measurement, and evaluation (or threshold and corrective action) are identified, along with identification of the responsible staff. Monitoring activities may reveal results that deviate from planned effects, in which case corrective actions are prescribed.

The Stikine Area Forest Supervisor is responsible for ensuring that project implementation, mitigation, monitoring, and enforcement is accomplished as specified.

Findings Required By Law

National Forest Management Act

The National Forest Management Act (NFMA) requires project consistency with existing Forest Plans and Regional Guides. It also requires a determination of clearcutting as the optimal method of harvesting and specific authorization of clearcuts over 100 acres in size.

Tongass Land Management Plan and Alaska Regional Guide

This decision is consistent with the Alaska Regional Guide and the Tongass Land Management Plan of 1979 (as amended). I have reviewed the management direction, standards and guidelines, and the schedule of activities for the VCU's included in the Selected Alternative, and find the Selected Alternative to be consistent with these elements. The areas of undisturbed old-growth wildlife habitat maintained in this alternative exceed the standards for retention established in the TLMP.

Although not required, the activities authorized in this decision are consistent with the proposed standards and guidelines and management prescriptions of the Supplement to the Draft EIS for the TLMP Revision.

Clearcutting as the Optimal Method of Harvesting

The Alaska Regional Guide established silvicultural and management standards for the western hemlock-Sitka spruce forest type (Alaska Regional Guide, page 3-18). Even-aged management in the form of clearcutting is, according to the Regional Guide, to be used where the management objective is to meet timber production objectives established in the Forest Plan, where there is a risk of dwarf mistletoe infestation, and where risk of windthrow is determined to be high. Although dwarf mistletoe is not a major problem in the North and East Kuiu Project Area, many of the harvest units being proposed in the Selected Alternative have a high risk of windthrow. All units in the Selected Alternative, except the two discussed in the earlier Decision section, will be clearcut. Clearcutting of the proposed harvest units will meet the objective of maintaining fast-growing, mistletoe-free stands of mixed species and is the optimum method of harvesting, considering the following factors referenced in the Alaska Regional Guide:

- The thin bark and shallow roots of hemlock and spruce make them particularly susceptible to logging injury, which leads to decay. Losses from decay fungi are high but clearcutting has the greatest potential for reducing decay.
- Hemlock dwarf mistletoe, *Arcanthobium tsugense*, a common disease of western hemlock, can best be controlled by clearcutting. Elimination of residual overstory trees infected with dwarf mistletoe minimizes infestation of western hemlock in the new stand.
- Exposure to the sun raises soil temperature, which speeds decomposition, thereby improving the productivity of most sites.
- Clearcutting favors more regeneration of Sitka spruce by creating more favorable conditions for post-logging reproduction of spruce.
- Risk of blowdown in residual stands is minimized. The chance of blowdown along cutting boundaries is increased but can be reduced through proper design of cutting units.
- Natural seed fall from adjacent stands is generally adequate for regeneration and most young stands are dense.
- Logging costs are lower than with other regeneration methods.

Clearcuts Over 100 Acres in Size

There are a total of three units or combinations of units which exceed 100 acres. Appendix E of the FEIS includes a table that displays these units or combinations of units and lists the reasons for exceeding 100 acres. These units were clearly displayed for comment during the 60-day review of the Draft EIS. This 60-day public comment period meets the requirements of the Alaska Regional Guide for approval of units over 100 acres. Based on public review and the statements of reasons listed for the units greater than 100 acres in Chapter 2 of the Final EIS, these units are authorized for harvest as designed.

Tongass Timber Reform Act

Harvest units were designed and will be located to maintain a minimum 100-foot buffer zone for all Class I streams and Class II streams which flow directly into Class I streams as required in Section 103 of the TTRA. As discussed previously in the Mitigation section of this ROD, the actual widths of these buffer strips will often be greater than the 100-foot minimum. The design and implementation direction for the Selected Alternative incorporate BMPs for protection of all stream classes.

Per Section 301 of the TTRA that modified the APC Long-term Timber Sale Contract, the North and East Kuiu Project was planned, management requirements were applied, and environmental analysis procedures were followed consistent with procedures for independent

National Forest timber sales. Analysis of the proportion of Volume Classes 6 and 7 planned for harvest was also performed. It was determined that upon completion of the Selected Alternative's harvest, proportionality consistent with the requirements of the TTRA for Management Areas S09 and S04 will result. The Selected Alternative shows a decrease of less than one-half of one percent of volume class strata 6 and 7 in both MAs. An analysis of future offerings (see Appendix F of the FEIS) indicates:

- Sufficient volume remains in the MA to provide for scheduling of future long-term contract offerings (see Appendix F).
- The volume remaining within the MA will meet planned direction for a feasible offering (see Appendix F).
- The volume projected to remain within the MA at the end of the long-term contract term will meet the standard of proportionality that existed in the MA at the time the TTRA was signed into law.
- Harvest of volume from natural catastrophic conditions such as fire, insect and disease attack, or windstorm is possible provided that the harvest will not preclude the opportunity to regain the existing proportion by the expiration of the long-term contract.

The Ten-Year Timber Sale Schedule for the Stikine Area projects an additional harvest of approximately 200 MMBF in these two MAs prior to the termination of the long-term contract. This provides ample opportunity to correct for the departure that will occur with implementation of this alternative (see Appendix F). With the transportation network developed in the selected alternative, the opportunity exists for adjustment of the proportionality deficits in both management areas during future NEPA processes associated with the volume scheduled. Actual layout of the offerings will also consider proportionality calculations and provide the opportunity to make minor corrections to the proportionality deficit.

Endangered Species Act

Actions authorized in the Selected Alternative are not anticipated to have a direct, indirect, or cumulative affect on any threatened, endangered or sensitive species in the North and East Kuiu Project Area. A complete biological assessment is included in the planning record for this project. I have determined that this action will not have any adverse impacts on any threatened or endangered species.

Bald Eagle Protection Act

Management activities within 330 feet of an eagle nest site are restricted by a Memorandum of Understanding (MOU) between the Forest Service and the U. S. Fish and Wildlife Service to facilitate compliance with the Bald Eagle Protection Act. The Selected Alternative is not anticipated to have a significant direct, indirect, or cumulative affect on any bald eagle.

Clean Water Act

The design of harvest units and roads for the Selected Alternative were guided by standards, guidelines, and direction contained in the current TLMP, the TLMP Revision, Alaska Regional Guide, and applicable Forest Service manuals and handbooks. The Unit Plans and Road Descriptions (Appendix A) contain specific details on practices prescribed to prevent or reduce non-point sediment sources. Implementation with site specific application and monitoring of approved BMPs in accordance with the Memorandum of Agreement between the Forest Service and the Alaska Department of Environmental Conservation is expected to comply with applicable State Water Quality Standards Regulations.

The Environmental Protection Agency has established normal conditions including monitoring as a part of the permitting process for log transfer facilities.

National Historic Preservation Act

Cultural resource surveys of various intensities have been conducted in the Project Area. The State Historical Preservation Officer has been consulted, and the provisions of 36 CFR part 800 have been complied with. The APC contract contains enforceable measures for protecting any undiscovered cultural resource that might be encountered during sale operations. All ground-disturbing activities associated with this action have received cultural resource clearance by the State Historic Preservation Officer. Based on surveys conducted by professional archaeologists in the project area, I have determined that there will be no significant effects on cultural resources.

ANILCA Section 810, Subsistence Evaluation and Findings

A subsistence evaluation was conducted for the four alternatives considered in detail for the proposed action in accordance with ANILCA Section 810. Open houses followed by ANILCA Section 810 hearings were held in Point Baker, Port Alexander, Kake, and Petersburg.

Hearings were held twice in Petersburg and Kake. The second hearings were held to give more people in those communities an opportunity to testify. Refer to Appendix K of the Final EIS for the complete documentation of the hearings.

The evaluation of comments from the public, subsistence hearing testimony, and additional analysis, indicates that the potential foreseeable effects from the action alternatives in the North and East Kuiu Project Area do not indicate a significant possibility of a significant restriction of subsistence uses for black bear, furbearers, marine mammals, waterfowl, salmon, other finfish, shellfish, and other foods such as berries and roots.

I believe there may, however, be a significant restriction of subsistence use of Sitka black-tailed deer in the Project Area due to estimated impacts on future abundance and distribution. This is regardless of which of the action alternatives is implemented.

Based on a review of the subsistence hearing testimony and the analysis conducted in the Final EIS, it is apparent that all of the action alternatives involve some potential to impact subsistence uses. There is no alternative that would meet APC contract timber volume requirements and TLMP direction and yet avoid a significant possibility of a subsistence restriction somewhere in the Forest. Therefore, based on the analysis of the information presented in the Final EIS, it is my determination that these actions are necessary, consistent with sound management of public lands.

The amount of public land involved to implement the Selected Alternative is (considering sound multiple-use management of public lands) the minimum necessary. Conversion of old-growth forest into second-growth forest affects habitat capability for deer and other old-growth dependent species wherever it occurs on the Tongass National Forest, and habitat is used forestwide by such species.

The majority of the Tongass National Forest is used by one or more rural communities for subsistence purposes for deer hunting (TRUCS, Forest Service 1990). The areas of most subsistence use are the areas adjacent to existing road systems, beaches, and the areas in close proximity to the communities. Much effort was taken to protect the highest value subsistence areas. For example, the beach fringe is one of the highest use subsistence areas and less than one percent will be impacted by the Selected Alternative as a result of road and LTF construction.

It is not possible to lessen harvest in one area and concentrate it in another without changing the impact on one or more rural communities' important subsistence use areas. In addition, harvestable populations of game species could not be maintained in a natural distribution across the Forest if harvest was concentrated in specific areas. A well distributed population of species is also required by Forest Service regulations implementing the National Forest Management Act. Therefore, I conclude that the acres scheduled for harvest in the Selected Alternative meet sound multiple-use management of public lands and involves the minimum amount of public land used for subsistence. Furthermore, it resolves resource concerns reflected in the public issues associated with this EIS.

Impacts on subsistence have been minimized through the development of the individual harvest units and road corridors, and through the formulation of the alternatives. Mitigation measures applicable to all resources including subsistence are described in this ROD. It is my determination that reasonable measures to minimize impacts on subsistence have been adopted to the maximum extent practicable while still meeting the purpose and need for this project.

The Selected Alternative reflects special efforts by the Forest Service to minimize the effects on subsistence resources used by those rural communities that would be most likely to receive the highest priority for game in the event of an ANILCA Section 804 "Tier II" restriction.

Executive Orders 11988 and 11990

Executive Order 11988 directs Federal agencies to take action to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains. The numerous streams in the North and East Kuiu Project Area makes it impossible to avoid all floodplains during road construction. The design of the proposed developments and the application of Best Management Practices combine to minimize adverse impacts on floodplains.

Executive Order 11990 requires Federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of wetlands. Some wetland vegetation will be altered by timber harvest and some roads will be built on wetlands. However, techniques and practices required by the Forest Service serve to maintain wetland functions. The Selected Alternative avoids all areas of identified high-value wetlands.

Coastal Zone Management Act

The Coastal Zone Management Act of 1972, while specifically excluding federal lands from the coastal zone, requires that a federal agency's activities be consistent with a state's coastal management program to the maximum extent practicable when that agency's activities affect the coastal zone. Forest Service requirements for consistency are detailed in a Memorandum of Understanding between the State of Alaska and the Regional Forester, dated October 8, 1981. Standards against which the consistency evaluation take place are: Alaska Statute Title 46, Water, Air, Energy, and Environmental Conservation; Alaska Forest Practices Act of 1990; and the Sitka District Coastal Management Program.

State of Alaska comments on the Draft EIS indicate that the project would be consistent to the maximum extent practicable with the ACMP. In addition, the standards and guidelines for timber management activities in the North and East Kuiu Project Area meet or exceed those indicated in the Alaska Forest Practices Act and the Alaska Coastal Management Program (ACMP).

I have determined that the proposed activities are consistent with the Alaska Coastal Management Program to the maximum extent practicable. In accordance with the Memorandum of Understanding and Alaska Statutes, the Office of Governmental Coordination will do a consistency review of the Selected Alternative, and will concur with, or object to, this determination.

Federal and State Permits

Federal and State permits necessary to implement the authorized activities are listed at the end of Chapter 1 of the Final EIS.

Implementation Process

Implementation of this decision may occur no sooner than 30 days after the date of publication of the Notice of Availability of the Final EIS in the Federal Register, or 30 days following publication of the legal notice of the decision in the Petersburg Pilot, published in Petersburg, Alaska, whichever is later.

This project will be implemented in three or more timber offerings in accordance with Forest Service Manual and Handbook direction for Timber Sale Project Implementation in FSM 2431.3 and FSH 2409.24. This direction provides a bridge between project planning and implementation and will ensure execution of the actions, environmental standards, and mitigation approved by this decision, and compliance with the TTRA and other laws.

Implementation of all activities authorized by this Record of Decision will be monitored to ensure that they are carried out as planned and described in the Final EIS and ROD.

Appendix A of the Final EIS contains the Unit Plans and Road Descriptions. These are an integral part of this decision because they document the specific resource concerns, management objectives, and mitigation measures to govern the layout of the harvest units and construction of roads. The individual unit plans will be used as a diagnostic tool for the development of silvicultural prescriptions prior to individual unit harvest that site specifically depict pre- and post-harvest silvicultural treatment of stands (FSH 2409.26d R10). Silvicultural prescriptions will be maintained on file at the Petersburg District office. Unit plans together with their complimentary silvicultural prescriptions and road descriptions will be used during the implementation process to ensure that all aspects of the project are implemented within applicable standards and guidelines and that resource impacts will not be greater than those described in the EIS. The implementation record for this project will display each harvest unit, transportation facility, and other project components as actually implemented, any proposed changes to the design, location, standards, and guidelines, or other mitigation measures for the project, and the decisions on the proposed changes.

Process for Changes Resulting from Implementation Monitoring

Any proposed changes to the authorized project actions will be fully subject to an interdisciplinary review process and the documentation, public involvement, and other requirements

of the National Environmental Policy Act (NEPA), the National Forest Management Act of 1976 (NFMA), Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA), the Tongass Timber Reform Act (TTRA), the Coastal Zone Management Act (CZMA), and other laws concerning proposed actions.

No changes requiring modification of the APC Long-term Timber Sale Contract or other existing contracts or permits will be approved without the signature of the contracting or permitting officer or his/her successor or superior.

The Forest Supervisor will determine whether further NEPA, ANILCA, TTRA, other documentation or disclosure, opportunity for public involvement, or other action is necessary before proceeding with any action that deviates from the planned activity. Connected or interrelated proposed changes regarding particular areas or specific activities will be considered together in making this determination. Cumulative impacts will be considered.

In determining whether and what kind of further NEPA action is required, the Forest Supervisor will consider the criteria for whether to supplement an existing Environmental Impact Statement (EIS) in 40 CFR 1502.9(c), and in particular, whether the proposed change is a substantial change to the Selected Alternative as planned and already approved, and whether the change is relevant to environmental concerns. The Forest Supervisor will consider whether an Environmental Assessment (EA) should be prepared to determine whether a supplement to the existing EIS is required, or whether the change is categorically excluded from preparation of an EIS or EA on the basis of the criteria in FSH 1909.15.

Many minor changes to harvest units, transportation facilities, or other project components may be categorically excluded from documentation in an EA or EIS and will not present sufficient potential impacts to require any specific documentation or other action to comply with other laws. Minor changes may still require appropriate scoping, environmental analysis, documentation in a Decision Memo, and public notice to comply with FSH 1909.15.

Right To Appeal

This decision is subject to administrative appeal. Organizations or members of the general public may appeal this decision according to Title 36 Code of Federal Regulations (CFR) Part 217. The appeal must be filed within 45 days of the date that legal notification of this decision is published in the Petersburg Pilot, the official newspaper of record. The Notice of Appeal must be filed in duplicate with:

Michael A. Barton, Regional Forester
U.S.D.A. Forest Service
P.O. Box 21628
Juneau, AK 99802-1628

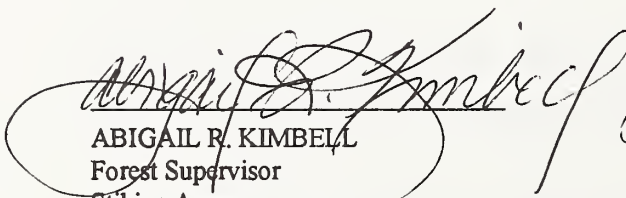
It is the responsibility of those who appeal a decision to provide the Regional Forester sufficient narrative evidence and argument to show why the decision by the Forest Supervisor should be changed or reversed. At a minimum, the written notice of appeal must:

1. State that the document is a Notice of Appeal filed pursuant to 36 CFR part 217;
2. List the name, address, and telephone number of appellant;
3. Identify the decision about which the requester objects;
4. Identify the document in which the decision is contained by title and subject, date of the decision, and name and title of the Deciding Officer;
5. Identify specifically that portion of the decision document to which the requester objects;
6. State the reasons for objection, including issues of fact, law, regulations, or policy and, if applicable, specifically how the decision violates the law, regulation, or policy; and
7. Identify the specific change(s) in the decision that the appellant seeks.

Contact Person

For additional information concerning the specific activities authorized with this decision contact the North and East Kuiu Planning Team at the following address:

Bob Gerdes, North and East Kuiu Planning Team
Stikine Area, Tongass NF
P.O. Box 309
Petersburg, AK 99833 (907) 772-3841


ABIGAIL R. KIMBELL
Forest Supervisor
Stikine Area
Tongass National Forest

January 20, 1993
Date

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